

CLAIMS

1. A chip resistor comprising:

5 a chip-like resistor element including a bottom surface, an upper surface opposite to the bottom surface, two end surfaces and two side surfaces;

two electrodes spaced from each other on the bottom surface of the resistor element; and

an insulator between the two electrodes;

10 wherein at least one of the two electrodes overlaps the insulator as viewed in a direction in which the bottom surface and the upper surface are spaced from each other.

2. The chip resistor according to claim 1, wherein the
15 insulator is a resin film which is flat as a whole, said at least one of the electrodes including an overlapping portion extending onto the resin film.

3. The chip resistor according to claim 1, wherein the
20 insulator includes a first portion between the two electrodes, and a second portion formed integral with the first portion, the second portion extending on said at least one of the electrodes.

25 4. The chip resistor according to claim 1, further comprising a soldering-facilitation layer which covers the end surfaces of the resistor element and the electrodes.

5. The chip resistor according to claim 1, further comprising an additional insulation film formed on the upper surface of the resistor element, and two auxiliary electrodes spaced from each other via the additional
5 insulation film.

6. A method of making a chip resistor, the method comprising the steps of:

 patterning an insulation film on a surface of a metal
10 resistor element;

 forming a conductive layer on said surface of the resistor element to extend on both the insulation film and a region at which the insulation film is not present; and

 dividing the resistor element into a plurality of
15 chips so that part of the conductive layer is formed into a pair of electrodes spaced from each other via part of the insulation film.

7. The method according to claim 6, wherein the resistor
20 element is one of a metal plate or a metal bar.

8. The method according to claim 6, wherein the step of forming a conductive layer comprises: a printing process of forming a first conductive layer extending on both the
25 insulation film and the region at which the insulation film is not present; and a plating process of forming a second conductive layer on the first conductive layer.

9. The method according to claim 6, wherein the patterning of the insulation film is performed by thick-film printing.

10. A method of making a chip resistor, the method
5 comprising the steps of:

patterning a first insulation film on a surface of a metal resistor element;

forming a conductive layer on a region of said surface of the resistor element in which the insulation film is
10 not present;

patterning a second insulation film on said surface of the resistor element so that the second film extends on both the first insulation film and the conductive layer; and

15 dividing the resistor element into a plurality of chips so that part of the conductive layer is formed into a pair of electrodes spaced from each other via part of the first insulation film.

20 11. The method according to claim 10, wherein the patterning of the first insulation film and the second insulation film is performed by thick-film printing.

12. The method according to claim 10, wherein the
25 conductive layer is formed by plating.